

In the Claims

The claims have been amended as follows:

1 1. (currently amended) A method for reworking an electronic component with copper
2 or copper/nickel pads containing a nickel layer and an overlying gold layer comprising the
3 steps of:
4 supplying an electronic component having copper or copper/nickel pads thereon
5 containing a nickel layer and an overlying gold layer;
6 etching the gold layer on the component pads;
7 etching the nickel layer on the component pads;
8 treating the etched component to remove products formed during the etching steps
9 and corrosion products; and
10 plating the ~~restored~~treated copper surface with a nickel layer followed by a gold
11 layer.

1 2. (original) The method of claim 1 wherein the pads on the treated component are
2 restored to their original condition by media blasting.

1 3. (original) The method of claim 2 wherein the gold layer is etched using a cyanide
2 containing solution.

1 4. (original) The method of claim 3 wherein the nickel layer is etched using an
2 alkaline oxidizer containing solution having a pH greater than about 12.0.

1 5. (currently amended) The method of claim 4 wherein the etched component is
2 treated using a free cyanide containing solution.

1 6. (withdrawn) An apparatus for reworking an electronic component with copper or
2 copper/nickel pads containing a nickel layer and an overlying gold layer comprising:
3 supplying means to supply an electronic component having copper or copper/nickel
4 pads thereon containing a nickel layer and an overlying gold layer;
5 etching means to etch the gold layer on the component pads;
6 etching means to etch the nickel layer on the component pads;
7 treating means to remove products formed during the etching steps and corrosion
8 products from the etched component; and
9 plating means to plate the restored copper or copper/nickel pad surface with a nickel
10 layer and an overlying gold layer.

1 7. (withdrawn) The apparatus of claim 6 wherein the pads on the treated component
2 are restored to their original condition by media blasting.

1 8. (withdrawn) The apparatus of claim 7 wherein the gold layer etching means are a
2 cyanide containing solution.

1 9. (withdrawn) The apparatus of claim 8 wherein the nickel layer etching means is
2 an alkaline oxidizer containing solution having a pH greater than about 12.0.

1 10. (withdrawn) The apparatus of claim 9 wherein the treating means are a cyanide
2 containing solution.

1 11. (withdrawn) A reworked electronic component made using the method of claim
2 1.

1 12. (withdrawn) A reworked electronic component made using the method of claim
2 2.

1 13. (withdrawn) A reworked electronic component made using the method of claim
2 3.

1 14. (withdrawn) A reworked electronic component made using the method of claim
2 4.

1 15. (withdrawn) A reworked electronic component made using the method of claim
2 5.

Please add the following claims:

1 16. (New) A method for reworking an electronic component with copper or
2 copper/nickel pads containing a nickel layer and an overlying gold layer comprising the
3 steps of:

4 supplying an electronic component having copper or copper/nickel pads thereon
5 containing a nickel layer and an overlying gold layer;

6 etching the gold layer on the component pads;

7 etching the nickel layer on the component pads;

8 treating the etched component to remove products formed during the etching steps

9 and corrosion products with an etchant selected from the group consisting of a free

10 cyanide containing solution, chromic acid and a sodium hydroxide solution with a

11 periodic reverse current; and

12 plating the treated copper surface with a nickel layer followed by a gold layer.

1 17. (new) The method of claim 16 wherein the etchant used to treat the etched
2 component is a free cyanide containing solution.

1 18. (new) The method of claim 17 wherein the pads on the treated component are
2 restored to their original condition by media blasting.

1 19. (new) The method of claim 18 wherein the gold layer is etched using a cyanide
2 containing solution.

- 1 20. (new) The method of claim 19 wherein the nickel layer is etched using an alkaline
2 oxidizer containing solution having a pH greater than about 12.0.